



GXP SQL Designer

User Guide

GXP SQL Designer is a Microsoft Windows desktop application for designing, generating, validating and executing SQL queries through a visual designer. This guide describes the main features according to the application menus and commands.

Information	Detail
Product	GXP SQL Designer
Application type	Desktop application for Windows, available for 32-bit and 64-bit platforms
Guide version	4.8
Date	24/08/2026
Required runtime	Microsoft .NET Framework 4.8
Interface languages	Italian and English

Author References

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General Features

- Connections to SQL Server, Microsoft Access, MySQL, PostgreSQL, SQLite and ODBC.
- Schema reading for tables, views, columns, primary keys, indexes and relationships.
- Visual designer with resizable tables, editable joins and a field grid.
- Provider-specific SQL generation, including TOP, LIMIT, delimiters and schema names.
- SQL editor with syntax highlighting, optional automatic formatting and field autocomplete.
- Import of existing SELECT queries to rebuild tables, joins, fields, WHERE, GROUP BY, HAVING and ORDER BY.



- Query execution with results that can be viewed, copied, exported and, when possible, edited.
- Creation of databases, tables, indexes, views and columns from the interface.
- Data import and export between databases, using SqlBulkCopy when importing into SQL Server.
- Preventive confirmation of affected rows before UPDATE or DELETE commands are executed.

Requirements and Installation

- Microsoft Windows 10 or Windows 11.
- Microsoft Windows Server 2008R2 and later.
- Microsoft .NET Framework 4.8 installed on the computer.
- Database drivers or providers required by the selected database type.
- For SQLite: System.Data.SQLite.dll in the application folder and SQLite.Interop.dll in the x64 and x86 subfolders; no COM registration is required.
- For Access: Microsoft Access Database Engine when ACCDB/MDB files or ADOX features are used.

Recent connections are stored in the user profile under

%APPDATA%\Softgroup\GXPSQLDesigner\connections.xml. Each Windows user therefore keeps a personal connection list.

Main Interface

Area	Description
Toolbar	Contains File, Connect, Refresh, Add, Automatic joins, SQL options, query execution and language commands.
Schema tree	Shows database tables, views and fields. String fields show their length when available, for example Item : String(30).
Diagram	Shows the tables included in the query and the join lines. Table windows can be moved and resized.
Query grid	Manages fields, aliases, UPDATE values, aggregate functions, GROUP BY, WHERE, HAVING, sort order and visibility.
SQL editor	Shows generated or manual SQL. Keyword highlighting remains active even when automatic formatting is disabled.
Status bar	Shows connection, query status, errors, returned rows or affected rows.



Recommended Workflow

1. Click Connect and select the database type.
2. Test the connection and confirm it.
3. Add tables from the tree, from the Add command or by drag and drop.
4. Select fields, aliases, filters and sort order in the grid.
5. Use SQL > Validate SQL to check the query.
6. Run the query with Execute query or save the session with File > Save.

File Menu

Command	Use
New	Opens a new working session. If the current query has changes, the application asks whether to save them.
Open	Loads a saved GXP SQL Designer session, including connection, diagram, grid, options and SQL.
Save	Saves the current session in .gxpsql format.
Create > Database	Creates a new database or database file when supported by the provider.
Create > Table	Opens the table definition window. Types containing the Size placeholder require an explicit length.
Create > Index	Creates an index, including unique indexes, on the selected table and fields.
Create > View	Creates a view from a valid SELECT statement.
Import data	Copies data from a source connection into the current connection.
Export data	Copies data from the current connection to another connection.
Execute Profiler	Launches GXPSQLProfiler.exe when it exists in the application folder. The command is enabled only for SQL Server connections.
Exit	Closes the application.



Database Connection

The Connect button opens the connection window. You can select the database type, reuse recent connections, enter or read main parameters and test the connection before using it.

Database	Operational notes
SQL Server	Supports SELECT, UPDATE and DELETE queries, SQL Server-specific functions and GXP SQL Profiler integration.
Microsoft Access	Uses OleDb. Some preventive checks are skipped when they could execute the command.
MySQL	Supports LIMIT and MySQL-specific functions.
PostgreSQL	Supports LIMIT and modification syntax using FROM/USING.
SQLite	Requires System.Data.SQLite and the native x64/x86 DLLs distributed with the application.
ODBC	Available for generic drivers. Functions and some object creation operations are available only when the provider is identified with certainty.

Visual Designer

The designer builds the query from the tables placed on the diagram. When Format SQL is enabled, SQL is regenerated from the diagram and grid; the editor is read only to avoid manual changes being overwritten.

- Add inserts one or more tables into the diagram.
- Double-clicking a field adds it to the grid when the designer can be edited.
- Dragging a table from the tree adds the table to the diagram.
- Join lines connect fields from different tables; join properties allow INNER, LEFT or RIGHT JOIN and additional conditions.
- Automatic joins adds relationships found through foreign keys or the GXPJOINS.INI file.
- When Format SQL is disabled, the designer is locked: tables and fields cannot be added and the grid cannot be edited.

Query Grid

Column	Description
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Column	Description
Table	Source table of the field or expression.
Field / expression	Selected field or SQL expression.
Alias	Alternative name in the result.
Value to assign	Value used in UPDATE queries.
Aggregate function	Functions such as COUNT, SUM, AVG, MIN or MAX.
GROUP BY	Includes the field in the GROUP BY clause.
WHERE condition	Filter applied before aggregation.
HAVING condition	Filter applied after aggregation.
Sort	ASC or DESC.
Visible	Includes or excludes the field from the SELECT output.

Toolbar Options

Command	Use
Type	Selects SELECT, UPDATE or DELETE.
Target	Defines the target table for UPDATE and DELETE.
DISTINCT	Removes duplicate rows from the SELECT output.
TOP	Limits the number of rows. Providers using LIMIT receive the appropriate generated syntax.
Brackets	Delimits schema, table and column names only when the name contains spaces or special characters.
Use schema	Includes the schema in generated table names, for example dbo.Customers.
Language	Switches the interface between Italian and English.

SQL Menu

Command	Use
Generate SQL	Regenerates SQL text from the designer.



Command	Use
Validate SQL	Checks the command syntax without executing it, when the provider allows it.
Copy SQL	Copies the current SQL text to the clipboard.
Import SQL	Lets the user paste or edit a SELECT query and rebuild tables, joins and fields with Analyze.
Format SQL	When enabled, the designer controls the SQL and the editor is read only. When disabled, the user can edit SQL manually.

When Format SQL is turned back on after manual edits, the application tries to import the query into the designer. If parsing succeeds, diagram, grid and formatted SQL are rebuilt; otherwise formatting remains disabled and the parsing error is shown.

Import SQL

- Single SELECT queries containing FROM are supported.
- Tables, aliases, simple joins, fields, WHERE, GROUP BY, HAVING and ORDER BY are rebuilt.
- SQL Server table hints such as WITH (NOLOCK) are preserved.
- Subqueries in FROM or JOIN, FULL JOIN, UNION, INTERSECT, EXCEPT and CTEs cannot be represented in the current version.
- JOIN conditions must use the Table.Field = Table.Field form, optionally combined with AND.

SQL Functions

The Functions command opens the function catalog compatible with the connected provider. Functions are database-specific: portable functions are not inserted and no internal portable-function translator is used. For ODBC the command is available only when the driver clearly matches a supported provider.

- Functions are grouped by category: text, numeric, date/time, conversion, null, conditional and aggregate.
- The Search box filters by name, syntax or category.
- Insert adds the syntax to the editor or to the selected query grid cell.
- Syntax is localized: in English it uses terms such as expression, condition and value.



Query Execution and Results

Execute query starts the current SQL command. F5 is the quick shortcut. During execution, Cancel query can stop the running command. SELECT statements show the results window; UPDATE and DELETE statements show affected rows.

- Before UPDATE or DELETE, the application attempts to calculate the number of affected rows and asks for confirmation.
- If no WHERE clause is present, a specific warning is shown.
- For Access, some preventive checks may be unavailable to avoid unintended execution.
- Provider errors are shown in a dialog without freezing the application.

Results Window

- Copy for Excel copies data in tab-delimited format.
- Copy CSV and Save CSV export CSV data.
- Copy HTML and Save HTML produce an HTML table.
- When the query is updateable, the grid allows editing, new row, delete row, undo changes and save changes.
- Result edits are saved in a transaction when possible.

Data Import and Export

Import data and Export data transfer tables between connections. The destination can append data or replace the table data. If the destination table does not exist, the program can create it together with supported indexes. When importing into SQL Server, SqlBulkCopy is used to speed up bulk insertion.

Execute Profiler

- The command is visible in the File menu after Create and is enabled only when a SQL Server connection is active.
- The application looks for GXPSQLProfiler.exe in the application folder; if it is missing, Profiler not installed is shown.
- At launch, language, server, authentication and current connection credentials are passed to the Profiler.
- In a Visual Studio debug session, the debug path of the Profiler project is used.



Shortcuts

Shortcut	Action
Ctrl+N	New session
Ctrl+O	Open session
Ctrl+S	Save session
Ctrl+F	Enable or disable Format SQL
F5	Execute query
F10	Refresh schema
Ctrl+Space	Show autocomplete in the SQL editor